



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,990	07/11/2003	Minoru Kawabata	2003_0956	2773

513 7590 05/19/2006

WENDEROTH, LIND & PONACK, L.L.P.
2033 K STREET N. W.
SUITE 800
WASHINGTON, DC 20006-1021

EXAMINER

NATNAEL, PAULOS M

ART UNIT	PAPER NUMBER
2622	

DATE MAILED: 05/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/616,990

Applicant(s)

KAWABATA ET AL.

Examiner

Paulos M. Natnael

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7-11-03</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4 rejected under 35 U.S.C. 102(e) as being anticipated by Shigeta, U.S. Pat. No. 6,064,456.

Considering claim 1, Shigeta discloses all claimed subject matter, note;

a) the claimed double bit change detection circuit for detecting a signal portion in the digital image signal, where a change in graduation between two adjacent pixels is twice a unit of graduation level represented by a digital value, and outputting a signal representing the results of the detection as a double bit change detection signal, is met by the High-Figure Bit change detecting circuit 31 in the false contour correcting circuit 3(FIG.3), the circuit 31 receiving a pixel data "D" and generating control signal P to selector control circuit 36. See also col. 5, lines 16-49

b) the claimed signal correction circuit for correcting the signal portion in the digital image signal to reduce the false contour based on the double bit change detection

signal, is met by the combination of Delay Circuit 32, the first, second, and third Data Converting circuits, 33,34 and 35 respectively, the Selector Control Circuit 36, and Selector 37, (FIG.3).

Regarding claim 2, the wherein said signal correction circuit corrects the signal portion in the digital image signal into a portion where there exist two one-bit changes each of which is a signal value change corresponding to the unit of graduation level based on the double bit change detection signal.

See rejection of claim 1.

Claims 3 and 4 are method claims of claims 1 and 2, respectively and thus, claims 3 and 4 are rejected for the same reasons as in claims 1 and 2.

3. Claims 1-4 rejected under 35 U.S.C. 102(e) as being anticipated by Mikoshiba et al., U.S. Pat. No. 6,529,204.

Considering claims 1-4, Mikoshiba et al. discloses a method of displaying halftone images, comprising a bit change detection process and moving image false contour correction processing as illustrated in Figures 52,53 and 54. The system of Mikoshiba specifies a bit number representing a subframe that realizes a specific intensity level. In fig. 52 the reference discloses a routine for detecting a change in each bit in frames n

and $n+1$. In step 1 the number N specifies a bit number representing a subframe that realizes a specific intensity level. Col. 24, lines 65+; In step ST3 correction of false contours is performed. Mikoshiba calculates level as well as period of change for each bit in a given field or frame. Mikoshiba thus discloses all claimed subject matter.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mikoshiba et al., U.S. Patent No. 6,496,194 discloses a halftone display method

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paulos M. Natnael whose telephone number is (571) 272-7354. The examiner can normally be reached on 9am - 5:30pm M,W, F (7am-3:30pm T,Th).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571)272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Paulos M. Natnael
Primary Examiner
Art Unit 2622

PMN
May 16, 2006